

STATEMENT OF BASIS

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0122050
to discharge to waters of the State of Louisiana.
AI No.: 146107 / Activity No.: PER20060001

THE APPLICANT IS: Natchitoches Parish Waterworks District No. 2
Robeline Water Treatment Plant
1665 Hwy 119
Natchez, Louisiana 71456

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Linda Gauthier

DATE PREPARED: January 12, 2007

1. PERMIT STATUS

- A. NPDES permit - NPDES permit effective date: NA
NPDES permit expiration date: NA
EPA has not retained enforcement authority.
- B. LWDPS permit - NA
LWDPS permit effective date: NA
LWDPS permit expiration date: NA
- C. Date Application Received: October 16, 2006
Revised Application Received: November 17, 2006

2. FACILITY INFORMATION

- A. FACILITY TYPE/ACTIVITY - potable water treatment plant

The proposed facility is expected to be completed and discharging by September, 2007. It will be capable of producing treated water at a rate of 495,082 GPD. Groundwater will be obtained from a subsurface well. Groundwater will be injected with KMNO_4 then pumped first through manganese green sand iron filters and then through zeolite water softeners. Iron filters will be backwashed every five days with treated water. Softeners will be regenerated using a brine solution approximately every three of five days. Sanitary wastewater will not be discharged from the site.

- B. FEE RATE
 - 1. Fee Rating Facility Type: minor
 - 2. Complexity Type: I
 - 3. Wastewater Type: III
 - 4. SIC code: 4941

- C. LOCATION - 638 Natchez Flora Road, Robeline
Natchitoches Parish
Latitude +31° 39' 28", Longitude -93° 04' 51"

3. OUTFALL INFORMATION

Outfall 001

Discharge Type: iron filter backwash and softener regeneration wastewater
Treatment: none
Location: at the point of discharge into Old River prior to mixing with other waters
Flow: 24,950 GPD
Discharge Route: via pipe to Old River, thence to Cane River, thence to the Red River

NOTE: This facility does not require storm water permit coverage because it does not discharge regulated storm water. The facility's SIC code, 4941, is not listed in the storm water regulations at LAC 33:IX.2511.B.14.a-k and therefore the storm water runoff from the site is not classified as regulated industrial storm water.

4. RECEIVING WATERS

STREAM – Outfall 001 – via pipe to Old River, thence to Cane River, thence to Red River

BASIN AND SEGMENT – Red River Basin – Subsegment 101101

DESIGNATED USES -
a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife
d. drinking water supply
e. agriculture

5. EXISTING EFFLUENT LIMITS

NA; facility has never been permitted

6. PROPOSED EFFLUENT LIMITS

BASIS – See Rationale below.

7. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

NA; facility has never been permitted

B. DMR Review/Excursions

NA; facility has never been permitted

8. ENDANGERED SPECIES

The receiving waterbodies and proposed discharge are not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

9. 303 (d) LISTED WATERBODIES

Subsegment 101101, is listed on LDEQ's Final 2004 303(d) list as impaired and is listed as impaired on the current Integrated Report (IR). Color, chloride and TDS from natural sources are listed as causes of impairment. Dissolved Oxygen is listed as a cause of impairment but the source of the low DO is not known. TMDLs are not required to be developed for the listed impairments for this subsegment.

10. HISTORIC SITES

The discharge is from a proposed facility location, which includes an expansion on undisturbed soils. Therefore, there could be potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Statement of Basis for
Natchitoches Parish Waterworks District No. 2
Robeline Water Treatment Plant
LA0122050 / AI 146107
Page 4

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

Rationale for Water Treatment Plant

1. Outfall 001 – iron filter backwash and softener regeneration wastewater

<u>Pollutant</u>	<u>Limitation*</u>	<u>Reference</u>
	Mo. Avg: Daily Max (mg/l)	
Flow (GPD)	---: Report	LAC 33:IX.2361.I.1.b
Chlorides	---: Report	Similar discharges** (BPJ)
Total Recoverable Iron	---: Report	Similar discharges** (BPJ)
Clarifying Agents Used	---: Report	Similar discharges** (BPJ)
TSS	30: 45 mg/l	Similar discharges** (BPJ)
pH	6.0 - 9.0 su	Similar discharges** (BPJ)

Treatment: settling pond

***Monitoring Frequency:** When discharging, once per quarter for Chlorides and Total Recoverable Iron; once per month for Flow, Clarifying Agents, TSS, and pH at the point of discharge from the settling pond prior to mixing with other waters.

****Limits Justification:** For all parameters except Chlorides, limits and monitoring frequencies are based on the general permit for potable water treatment plants (LAG380000) effective on January 1, 2005, raw water from ground water sources. A water quality screen (attached) was performed to calculate a water quality based limit for chlorides. However, the results of the screen indicate that a water quality based limit is not needed for chlorides. A chloride "Report" requirement is included due to its presence and use at the facility.

The receiving waterway (via pipe to Old River, thence to Cane River, thence to the Red River) is not listed by name in the Numerical Criteria and Designated Table (LAC 33:IX.1123 Table 3) for subsegment 101101. Therefore the chloride standard used to calculate effluent limitations for discharges of chlorides to Old River is 250 mg/l (LAC 33:IX.1113.C.2).

Receiving stream flow was established by the engineering support group at 0 cfs 7Q10 and 14.1 cfs harmonic mean. (See attached Letter dated September 21, 2006, Brian Baker to Bob Mears, McManus Consulting Engineers, and memo dated December 5, 2006, Brian Baker to Linda Gauthier.)

The harmonic mean value of 14.1 cfs was used for calculating the permit limitations for chloride discharges to the water body in accordance with LAC 33:IX.1115.C.8.

A harmonic mean value of 14.1 cfs was used in the calculations to determine the water quality based limitations for chlorides. The calculation yielded values of 63,570 monthly average and 150,919 mg/l daily maximum. It was determined that a water quality based permit limitation is not necessary to maintain the in-stream standard of 250 mg/l which was established to protect of the use of the water body as primary and secondary contact recreation, fish and wildlife propagation, drinking water supply, and agriculture.

Note: The Potable Water Treatment Plant General Permit is not appropriate for this facility because the facility treats the raw water by means of a zeolite ion exchange in the softening process. The zeolite is recharged using a sodium chloride solution which produces a high chloride concentration in the wastewater. The general permit does not provide coverage for discharges of wastewater from the zeolite treatment system.

Statement of Basis for
Natchitoches Parish Waterworks District No. 2
Robeline Water Treatment Plant
LA0122050 / AI 146107
Page 6

* Based on current guidance for new permits discharging into a waterbody listed on the Court Ordered 303(d) list.

BPJ Best Professional Judgment
GPD Gallons per Day
su Standard Units

NOTE

For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

Storm Water Pollution Prevention Plan (SWP3) Requirement

Discharges from this facility are not classified as industrial storm water per LAC 33:IX.2341.B.14. Therefore, the Storm Water Pollution Prevention Plan (SWP3) requirement is not included in this permit.

However, per LAC 33:IX.903.B, all above ground storage tanks with a capacity of 660 gallons for an individual container or 1320 for multiple containers, must have secondary containment and a Spill Prevention and Control Plan.